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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/527,815

03/14/2005

Takenori Ohshita

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38834

7590

06/21/2007

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EXAMINER

MCNALLY, DANIEL

ART UNIT

PAPER NUMBER

1733

MAIL DATE

DELIVERY MODE

06/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,815

Applicant(s)

OHSHITA ET AL.

Examiner

Daniel McNally

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1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/14/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: Claim 1, lines 4-5 recite "and a bellows section interconnecting both," it is not immediately clear what the applicant is referring to as "both", therefore it suggested replacing "both" with --the large-diameter tubular part and the small diameter tubular part--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittenbecher [WO2004/044446A1] in view of either one of Kudo et al. [US6676527] or Furuta [US2003/0069075].

It is noted WO2004/044446A1 is not published in English, therefore Wittenbecher [US20060040751] was used as the English translation of WO2004/044446A1. The English translation will be referred to as "Wittenbecher" from hereon.

Wittenbecher discloses a protective boot comprising bellows (1) and a bushing (2) (paragraph 0019). Figure 1 shows the bellows comprises two cylindrical portions; one on each of the ends, where one has a small diameter and the other has a large diameter. Figure 1 also shows the bushing inserted into the large diameter cylindrical portion of the bellows. Wittenbecher discloses the bellows and bushing are made of weldable plastic material that can be sealed by laser welding (paragraph 0021). A laser is irradiated at an angle, through the laser transparent bushing and onto the laser

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absorbent bellows, in a circular path to weld the edge (4) of the protective boot.

Wittenbecher discloses the bushing comprises a bevel (8) so that the laser impinges the bushing perpendicularly in order to reduce the loss of energy to reflection (paragraph 0023). The beveled edge is shown in Figure 3.

Kudo discloses a method of joining a joint boot to an outer cup. The joint between the boot and the outer cup form an inclined surface (24) (column 2, lines 26-51). The inclined surface between the cup and boot is formed at the contacting surface between the two parts and the inclined surface helps to form a seal between the two parts.

Furuta discloses a method of joining a boot and a bushing. A projection (13) on the surface of the cylindrical portion (11) produces a mechanical connection between the cylindrical portion and the bushing (2) (paragraphs 0034 and 0035). The projection on the cylindrical portion forms an outwardly divergent tilting surface, as shown in Figure 2.

It would have been obvious for one of ordinary skill in the art at the time of invention to modify the large diameter cylindrical portion of the bellows by slanting the surface as taught by either one of Kudo or Furuta in order to produce an engaging portion between the bushing and bellows so that the parts are mechanically held together.

With regard to claim 2, Wittenbecher shows the beveled edge in Figure 3, however the thickness of the beveled bushing portion is not shown to be equal because the cylindrical portion of the bellows is not shown slanted. However when the cylindrical

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portion of the bellows is slanted, as taught by either one of Kudo or Furuta, the beveled bushing portion will be of equal thickness.

With regard to claim 3, Wittenbecher discloses irradiating the laser perpendicularly to the beveled surface (paragraph 0023).

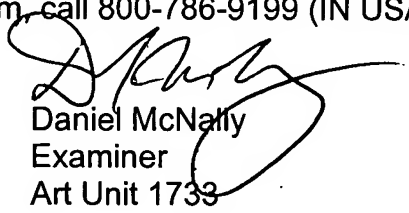
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel McNally whose telephone number is (571) 272-2685. The examiner can normally be reached on Monday - Friday 8:00AM-4:30PM.

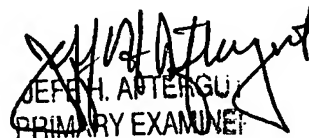
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel McNally
Examiner
Art Unit 1733



JEFFREY H. APTE
PRIMARY EXAMINER
GROUP 1300

/DPM/
June 19, 2007